

US-PAT-NO: 6224199

DOCUMENT-IDENTIFIER: US 6224199 B1

TITLE: Method of manufacturing an ink cartridge for use in ink jet recorder

DATE-ISSUED: May 1, 2001

INVENTOR-INFORMATION:

| NAME                | CITY   | STATE | ZIP CODE | COUNTRY |
|---------------------|--------|-------|----------|---------|
| Yamaguchi; Shuichi  | Nagano | N/A   | N/A      | JP      |
| Ito; Toshio         | Nagano | N/A   | N/A      | JP      |
| Matsuyama; Masahide | Nagano | N/A   | N/A      | JP      |
| Ogura; Yasuhiro     | Nagano | N/A   | N/A      | JP      |
| Doi; Fuminori       | Nagano | N/A   | N/A      | JP      |
| Kamijo; Masanori    | Nagano | N/A   | N/A      | JP      |
| Koike; Hisashi      | Nagano | N/A   | N/A      | JP      |
| Yamaguchi; Takeo    | Nagano | N/A   | N/A      | JP      |
| Fujimori; Hideo     | Nagano | N/A   | N/A      | JP      |

US-CL-CURRENT: 347/85

CLAIMS:

What is claimed is:

1. A method of refilling an ink bag of an ink cartridge for use in an ink-jet recorder comprising the steps of:

removing the ink cartridge from the ink-jet recorder;

removing the ink bag from the cartridge;

positioning the ink bag on a surface;

inserting an ink needle into a port of the ink bag;

discharging ink from the ink bag through the port by compressing the ink bag with press plates and applying a negative pressure via the ink needle while compressing the ink bag with the press plates; and

charging the ink bag through the port with a specified quantity of ink.

2. The method as recited by claim 1, wherein said charging step comprises charging the ink bag in a vacuum.